KNN Classifier and Regressor
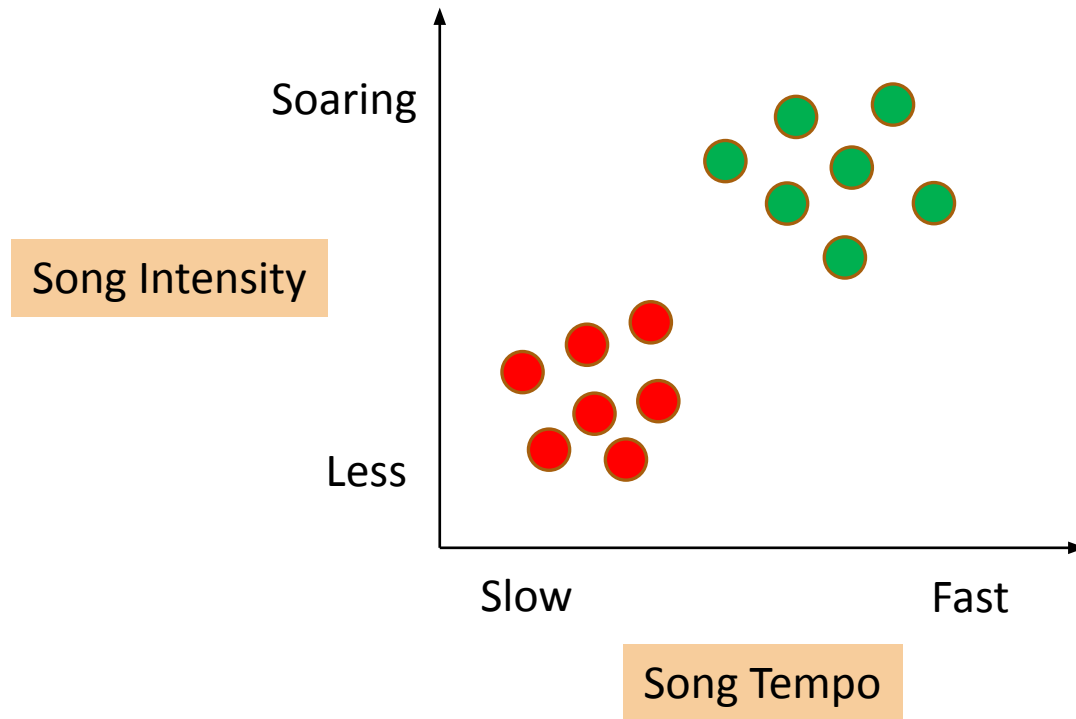
SINDHURA NADENDLA

Example of KNN (K Nearest Neighbours) Classification
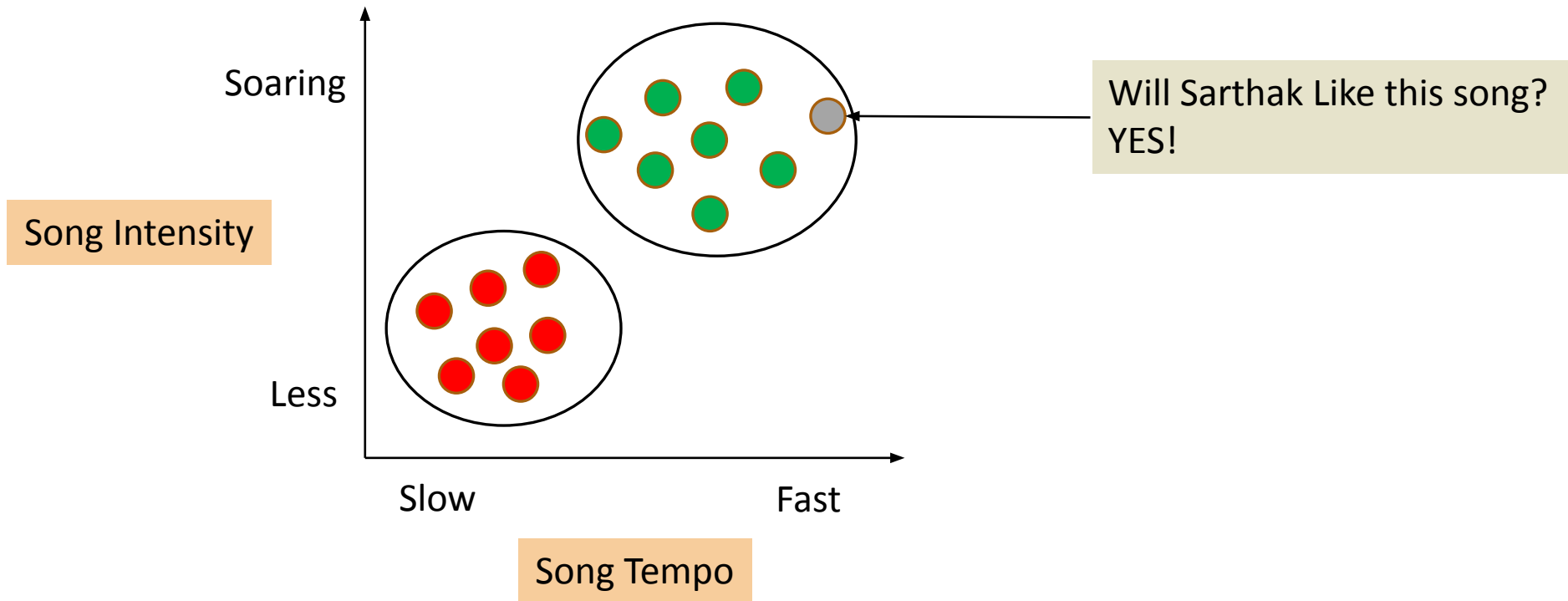
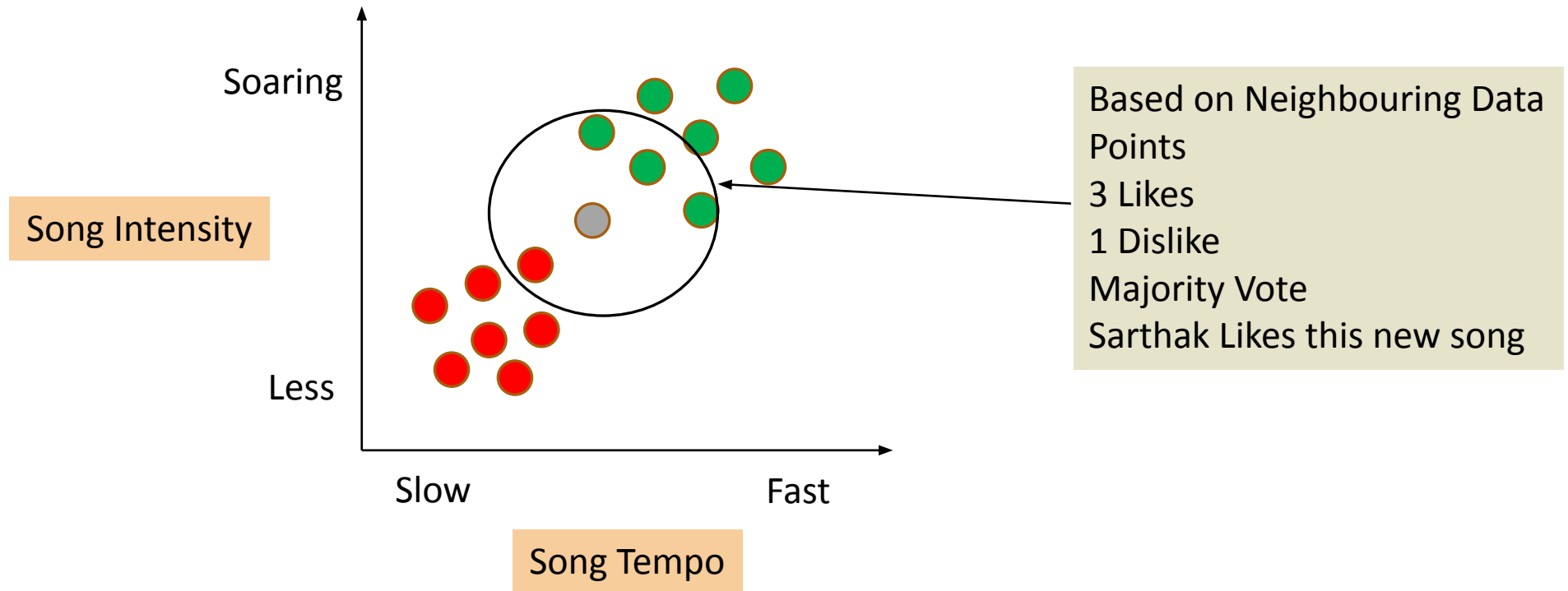# Will Sarthak like new song ? Fast tempo, Soaring Intensity

Medium Tempo , Medium Intensity

Soaring

Song Intensity

Less

Slow   Fast

Song Tempo

Based on Neighbouring Data Points
3 Likes
1 Dislike
Majority Vote
Sarthak Likes this new song

This Algorithm Called as KNN (K-Nearest-Neighbours)
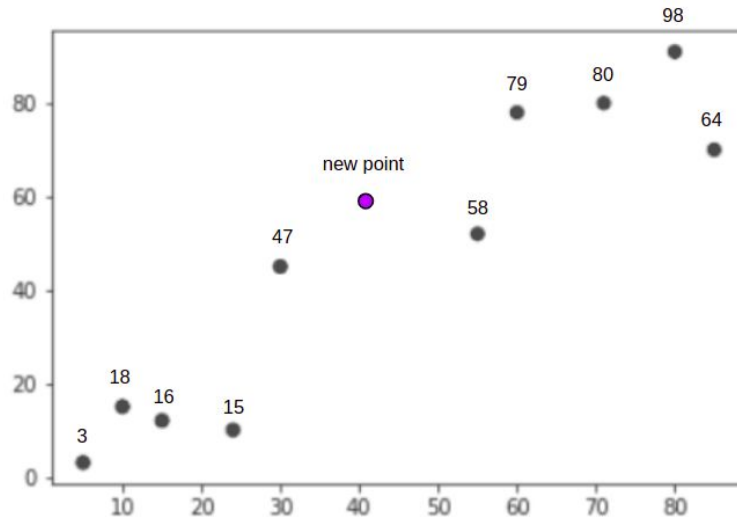
KNN code example

Scaling the Data is necessary in KNN Algorithm

```python
# KNN Classifier
from sklearn.neighbors import KNeighborsClassifier
model = KNeighborsClassifier(n_neighbors=5)
model.fit(xtrain,ytrain)
```

```python
# KNN Regressor
from sklearn.neighbors import KNeighborsRegressor
model = KNeighborsRegressor(n_neighbors=5)
model.fit(xtrain,ytrain)
```
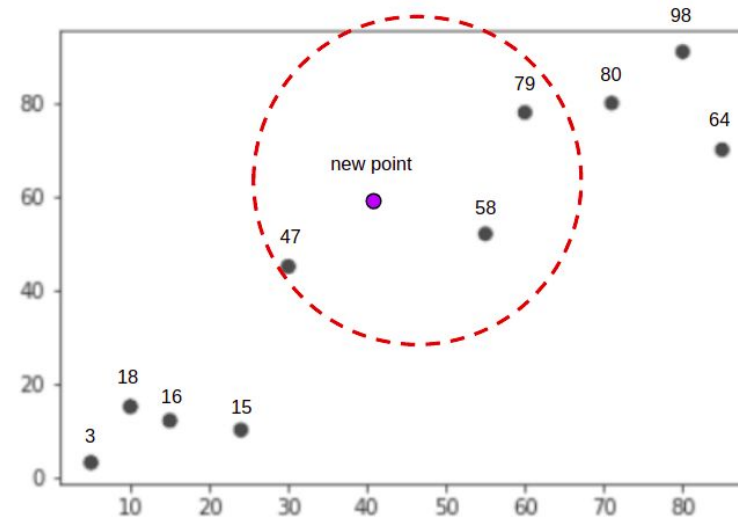
KNN Regressor example

KNN Regression, K = 3

KNN Regression, K = 3

new point = (47*weight + 58*weight + 79*weight)/3

if weight = 1 for all 3 neighboring points:

new point = (47*1 + 58*1 + 79*1)/3
new point = 61,333

Thank you

PING ME IF YOU HAVE ANY QUERIES